

**REMARKS**

Claims 30-33, 38, 40-42, 46, 49-51 and 53-55 are currently pending in the present application. Favorable consideration and allowance of these claims are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 30, 51 and 53 are amended to recite a pressure gauge rather than a manometer to improve the clarity of the claim. Support for this amendment may be found in the last full paragraph on page 36 of the application as filed.

The objection to the drawings and the rejection of the claims under 35 U.S.C. § 112, first paragraph, are both respectfully traversed.

The objection and rejection are both premised on the belief that the gas concentration detection unit, the detection signal, and the signal processing unit are not described in the specification or provided for in the drawings. However, all of these features are properly described in accordance with the applicable patent rules and regulations. For instance, Figure 14 shows a detector 402, an A/D converter 402A, and a computer 402B. The detector corresponds to the "gas concentration detection unit". The A/D converter inherently describes the "detection signal" and the computer corresponds to the "signal processing unit". The corresponding text in the specification further clarifies these descriptions, see page 41, line 20 - page 42, line 21.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail so that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003).

In particular, the originally filed specification shows that the inventors contemplated the invention as presently claimed. Thus, it is clear that the inventors were in possession of the claimed invention as of the filing of the present application. Accordingly, the claims are properly described for purposes

of satisfying the written description requirement and reconsideration and withdrawal of this rejection are respectfully requested.

Further, each of the elements alleged to be missing from the drawings are actually provided for, as shown above. Accordingly, withdrawal of the objection to the drawings is also respectfully requested.

The rejection of claims 30-33, 38, 40, 41, 46, 49, 51 and 53-55 under 35 U.S.C. § 103(a) over Tomita et al. (JP 2001-214270), in view of Ono (JP 47-10730) and Mantz US 4,410,473 is respectfully traversed.

As set forth in amended claims 30, 51 and 53, the controller is configured to increase the flow rate of diluting gas if the concentration of the source gas reaches an upper limit value, while maintaining said flow rate of said vaporizing gas constant. The controller is also configured to decrease the flow rate of diluting gas if the concentration of source gas reaches a lower limit, again while maintaining said flow rate of said vaporizing gas constant. Support for these amendments may be found in the originally filed specification, for instance on page 8, lines 15-24 and page 25, lines 33 to page 26, line 11.

None of the cited references teaches or describes such an arrangement. The claimed arrangement allows one to set the concentration of the mixed gas, and maintain it at a desired concentration range, by simply increasing or decreasing the flow of the dilution gas. This provides a technique to quickly and precisely control the source gas concentration.

In contrast, the convention control processes involve adjusting the flow rate of the carrier gas. As described on page 5, line 28 to page 6, line 11 of the specification, the increase in flow rate merely results in dilution of the mixed gas. These techniques do not achieve the same quick and precise control over the source gas concentration as is achieved with the claimed invention. Accordingly, not only do the cited reference not describe all of the elements of the presently claimed invention, but the claimed invention is significantly superior to the

previously known arrangements and methods. Accordingly, the claimed invention is not obvious in view of the cited references and reconsideration and withdrawal of this rejection are respectfully requested.

The rejection of claims 42 and 49 over Tomita et al. (JP 2001-214270), in view of Ono (JP 47-10730) Mantz US 4,410,473 and Satake et al. (JP 2001-234348) is respectfully traversed.

Satake is offered as making up for the failure of Tomita, Ono and Mantz to describe that the gas analyzer is a Fourier transform infrared spectrometer. However, Satake does not make up for the failure of Tomita, Ono and Mantz to describe the invention of independent claim 30, from which the rejected claims depend, as described above. Accordingly, the proposed combination of references does not teach or suggest each and every limitation of the presently pending claims. As such, this obviousness rejection cannot be properly maintained and reconsideration and withdrawal thereof are respectfully requested.

The rejection of claims 49 and 50 over Tomita et al. (JP 2001-214270), in view of Ono (JP 47-10730) Mantz US 4,410,473 and Holst et al. (US 2003/0056723) is respectfully traversed.

Holst is offered as teaching a NDIR concentration detector. However, Holst does not make up for the failure of Tomita, Ono and Mantz to describe the invention of independent claim 30, from which the rejected claims depend, as described above. Accordingly, the proposed combination of references does not teach or suggest each and every limitation of the presently pending claims. As such, this obviousness rejection cannot be properly maintained and reconsideration and withdrawal thereof are respectfully requested.

### CONCLUSION

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket No. 010986.52578US).

Respectfully submitted,

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